Goordination of such persons is essential to any sort of control. Coordination of three executives is a simple matter, but where there are one hundred or more it becomes difficult and complicated if one is to avoid "red tape," for we must never forget that any methods which go beyond those necessary to convey instruction, augment memory and keep all executives informed as to acts of other executives which may affect them, are red tape.

The Background and Personality of the Chief Executive

Failure to recognize the background and personality of the chief executive is probably one of the principal causes of trouble in making controls function effectively. Those of us who have studied questions of management and method in the abstract are always in some danger of overstressing rational methods. A rational method is worthless unless the executive happens to be of the type who can properly use that particular method. It is vastly better not to have so much method if a man is not going to use it, than to have too much of in other words, mist be set up according to the background and personality of the individual who is to exercise them.

If a chief executive develops from the selling end of the business he is almost certain to be of a very different type from a graduate of the production end. I know of a case where the chief executive came out of the sales end of the business. The business happened to be largely dependent upon selling and he happened to have a good production man. He has made a wonderful success and a national reputation. A chief executive in another industry came out of the selling end, but the business happened to be one where the production end was all important and very difficult. He did not happen to have a good production man, and he has not made much of a reputation; he has had awfully hard plugging. I cannot see that one of these men is particularly better than the other. They both had the same background. In one case this background fitted into the job, and in the other it caused him to deprecate the very things most necessary to the success of the business.

The temperament of the chief executive is another important element. Is it such as to predispose him to lead or to dominate? This makes a tremendous difference. Never try to give methods that require domination to a born leader—that would be fatal; but

be sure to give these methods to one who is not a born leader.

I am discussing this subject from the point of view of trying to help an existing situation, because my experience is along this line. I have never had the opportunity to select the man and create the methods for a new enterprise. Most industrial problems are with reference to an existing enterprise and involve personalities which are inseparable from it.

There are so many shades and degrees of temperament that it is hopeless to consider them unless we take the extremes. There are at least three clearly definable extremes:

There is the *inventor* type. The chief executives of most of our largest industries were of this type during their early stages. They created the idea out of which the industry developed and nursed it through its immaturity. They often possess to some extent all the best qualities for an executive, but in the end are dominated by their imagination. They usually lack stability, and, more often than otherwise, this is their undoing as the industry matures and becomes susceptible to a more mechanistic and rational type of management. We owe to this type most of the great industrial achievements of today, but the very qualities which make it possible for them to succeed in the early stages of an industry are the identical qualities which are their undoing when the industry matures

Another type is the *leader*. He is very much like the inventor type, but without his faculty for invention and his instability. He seldom creates in the sense that the inventor does, but he often leads others to do so and is a good coordinator. Seemingly at least he is an idealist and usually is of an attractive personality.

Then there is the true executive type. He is seldom brilliant, usually conservative, has a good memory, is well-informed, a hard worker and systematic. He has more head than heart and is most effective as the head of an already well-established undertaking

Obviously these three types cannot be expected to achieve the best results with the same methods of top control.

Present Practices and the State of the Art of the Enterprise

Members of the Taylor Society, especially the older group of us, should let our minds run back to what Taylor went through in establishing time studies, routing and what are generally known as the Taylor methods. It will make us realize what we are undertaking when we go far beyond the usages of the industry in which we are working.

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My first mature interest in psychology was roused at a meeting of a little group who used to dine together and listen to each other's ideas. The fellow who was talking that night was a psychologist at Columbia. He took a piece of stiff paper and folded it and said, "Do you see that piece of paper? It does not stay folded. I folded it, but it does not stay." He creased it with his thumb nail and said, "Now it will stay folded. I hure it."

We must never forget, in dealing with human beings, that some hurt is usually involved in change. We upset acquired habits which in time have taken on a quality like protective coloring. They comfort and protect us. The present practises of an art or an enterprise have a tremendous tenacity. Undertaking to change them is a big problem. If we attempt to change too rapidly or too definitely, we shall defeat our own ends.

Mr. Taylor virtually gave his life to changing management methods quickly, in one man's lifetime. He conceived the idea of the application of the scientific method to industry and made the sacrifice necessary to bring about an almost complete revolution in methods of management within one lifetime. He did a wonderful job and that is why we all feel as we do about him. I doubt if many of us have the personality or the character or, I will even say, the wish to make the sacrifices that Mr. Taylor made. If you do not want to make that sacrifice, if you do not want to run the risk of failing, do not try to go as far or as fast as he did. Existing conditions are one of the biggest factors in determining the most effective ways and means of top control.

I used to be terribly—what shall I say—academic with reference to methods of management. If a client would not do what I wanted, and would not let me give him my best. I would not give him anything. What I will give a man now would have been shocking to me then. Provided he can function with it and it stimulates him to constructive effort, I will give him almost anything and go away feeling fine. feeling that I have done a good job. I used to strive too hard for what was rationally best. I imagine most of the older men interested in scientific management have done this. I should feel sorry if you younger men were to have less high standards than we had,

but your standards must be adapted to the requirements of human nature. One must not try to give too much of one's self or to go too fast.

Some years ago I devised a method of visualizing management. I worked terribly hard on it—most Sundays and many nights for several years — and finally got something that worked. I showed it to some of my good friends; I wrote letters telling them how fine it was, and what a wonderful thing I had done, but I never got a peep out of them in the way of encouragement. They said the most shocking things. I was hurt all over. I knew it was good, but I could not sell it.

About that time I needed another assistant. A young man—C. L. Barnum, whom most of you know—applied for the job. I do not know where he got it, but he seemed to have a fine opinion of me, and he was willing to work for me very reasonably. I do not know why he did that, but he said he wanted breadth of experience. When I gave him the job I thought of my method of visualization. I said to myself, "Here is a Cornell man, an honor man, who not only took engineering, but also general science. He has the desired education and environment. If I cannot put this thing over with Barnum, it really must be no good."

After he got used to things I said, "Barnum, I want" you to make a study of such and such a situation and see what we can do with it. The way we handle a matter of this kind is to visualize the present method of operating; then with that before us, we study the old method and make a visualization of what should be substituted in its place." Then I told him all about my method of visualization and gave him the same sheets of paper that my good friends were unable to use. I did not tell him I had devised the method and that I could not get my friends to use it. Two or three days later he brought me a visualization of things as they existed. We discussed it and he walked off, and a couple of days later he came back. with the visualization of how it should be. You see Barnum has no prejudices or habits to overcome. He. was expecting to get something new and he got it. Not knowing how new it was, he had no prejudice against it. When you undertake to change old estab-; lished practices in an industry, the conditions are exactly the reverse and unless you are very careful your results will be just as exactly reverse. It is easier to learn something entirely new than a new way of doing something one already has a fixed way of